

Serial No.: 10/089,339

IN THE CLAIMS:

Please amend the claims as follows:

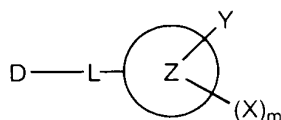
1. (Currently amended) A reactive dye compound comprising:
  - (a) at least one chromophore moiety;
  - (b) at least one nitrogen-containing heterocycle
  - (c) a linking group, L, to link each chromophore moiety to each nitrogen-containing heterocycle;characterised in that at least one nitrogen-containing heterocycle is substituted with at least one Y group wherein Y is a phosphonate or a borate derivative, ~~preferably wherein the phosphonate group is selected from polyphosphonates having the formula  $\text{O}-(\text{P}=\text{O})(\text{OH})\text{R}'$  wherein  $\text{R}'$  is a suitable nucleophile which is not OH.~~ under the proviso that if the phosphonate derivative is selected from phosphonates having the formula:  
 $-\text{O}-(\text{P}=\text{O})(\text{OH})\text{R}'$  wherein  $\text{R}'$  is any suitable nucleophilic moiety,  $\text{R}'$  is not OH;  
wherein L is selected from the group consisting of NR, N(C=O)R, and N(SO<sub>2</sub>)R;  
wherein R is H or C<sub>1</sub>-C<sub>4</sub> alkyl, which further can be substituted by halogen, hydroxyl, cyano, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>2</sub>-C<sub>5</sub> alkoxycarbonyl, carboxyl, sulfamoyl, sulfo, sulfato.
2. (Original) A reactive dye compound according to Claim 1 wherein Y is derived from a phosphonate, preferably aceto diphosphonic acid.
3. (Currently amended) A reactive dye compound according to Claim 1 or 2 wherein Y is  $-\text{O}-(\text{PO})(\text{OH})\text{C}(\text{CH}_3)(\text{OH})(\text{PO})(\text{OH})_2$ .

Serial No.: 10/089,339

4. (Currently amended) A reactive dye compound according to ~~any of Claims 1 to 3~~ Claim 1 wherein the nitrogen-containing heterocycle is selected from triazine, pyrimidine, quinoxaline, phthalazine, pyridazone and pyrazine.
5. (Currently amended) A reactive dye compound according to ~~any of Claims 1 to 4~~ Claim 1 wherein the nitrogen-containing heterocycle is selected from triazine, pyrimidine or quinoxaline.
6. (Currently amended) A reactive dye compound according to ~~any of Claims 1 to 5~~ Claim 1 wherein the nitrogen-containing heterocycle is selected from triazine and pyrimidine.
7. (Currently amended) A reactive dye compound according to ~~any of Claims 1 to 6~~ Claim 1 wherein the linking group is selected from NR, N(C=O)R, N(SO<sub>2</sub>)R where R is selected from H or C1-C4 alkyl which can be substituted by halo, hydroxy, cyano, C1-C4 alkoxy, C2-C5 alkoxycarbonyl, carboxyl, sulfamoyl, sulfo and sulfato.
8. (Original) A reactive dye compound according to Claim 7 wherein the linking group is NR.
9. (Original) A reactive dye compound according to Claim 8 wherein R is H or C1-C4 alkyl, preferably H.
10. (Currently amended) A reactive dye compound according to ~~any of Claims 1 to 9~~ Claim 1 wherein the nitrogen-containing heterocycle is additionally substituted with one or more X substituents, wherein X is independently selected from Y and halogen.

Serial No.: 10/089,339

11. (Currently amended) A reactive dye having the formula (I):



wherein D is a chromophore group;

~~L, Z, Y, X are as defined above and n is an integer of from 1 to 4;~~

L is a linking moiety selected from NR, N(C=O)R, N(SO<sub>2</sub>)R;

wherein R is H or C<sub>1</sub>-C<sub>4</sub> alkyl, wherein said alkyl can be further substituted by halogen, hydroxyl, cyano, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>2</sub>-C<sub>5</sub> alkoxy carbonyl, carboxyl, sulfamoyl, sulfo, and sulfato;

Z is a nitrogen-containing heterocycle;

Y is a phosphonate or borate derivative, under the proviso that if the phosphonate derivative is selected from phosphonates having the formula:

-O-(P=O)(OH)R' wherein R' is any suitable nucleophilic moiety, R' is not OH;

X is selected from the group consisting of phosphonate derivatives, borate derivatives, thio-derivatives, halogen, amines, alkoxy groups, carboxylic acid groups, CN, N<sub>3</sub> and quaternized nitrogen derivatives, Q<sup>+</sup>; and,

m is 1 or 2.

and salts and esters thereof.

12. (Currently amended) ~~Use of a compound according to any of Claims 1 to 11 for dyeing cellulosic substrates, preferably cotton.~~

Serial No.: 10/089,339

A method of dyeing a cellulosic substrate, comprising contacting the cellulosic substrate with a compound according to Claim 1, wherein the cellulosic substrate is preferably cotton.

13. ~~(Currently amended) Use of a compound according to any of Claims 1 to 11 for dyeing wool.~~  
A method of dyeing wool, comprising contacting the wool with a compound according to Claim 1.
14. ~~(Currently amended) Use of a compound according to any of Claims 1 to 11 for dyeing polyamide substrates, preferably nylon.~~  
A method of dyeing a polyamide substrates, comprising contacting the polyamide substrate with a compound according to Claim 1, wherein the polyamide substrate is preferably nylon.
15. ~~(Currently amended) Use of a compound according to any of Claims 1 to 11 for dyeing silk.~~  
A method of dyeing silk, comprising contacting the silk with a compound according to Claim 1.
16. ~~(Currently amended) Use of a compound according to any of Claims 1 to 11 for dyeing keratin, preferably hair.~~  
A method of dyeing keratin, comprising contacting the keratin with a compound according to Claim 1.
17. ~~(Currently amended) Use of a compound according to any of Claims 1 to 11 for dyeing leather.~~  
A method of dyeing leather, comprising contacting the leather with a compound according to Claim 1.

Serial No.: 10/089,339

18. (Currently amended) Process for the preparation of a compound according to ~~any of Claims 1 to 11~~ Claim 1 comprising the steps of reacting a first starting material with a second starting material, the first starting material comprising at least one chromophore and at least one nitrogen-containing heterocycle which is attached to the chromophore group via a linking group L, the second starting material being a compound containing a Y group which is a phosphonate or borate group as defined hereinabove.
19. (Original) Process according to Claim 18 wherein the second starting material is aceto phosphonic acid.
20. (Currently amended) Process according to Claim 18 ~~or 19~~ wherein the process is carried out at a pH of from about 2 to about 8, preferably from about 3 to about 5.
21. (Currently amended) Process according to ~~any of Claims 18 to 20~~ Claim 18 wherein the second starting material is added to the first starting material slowly, preferably dropwise, preferably over several hours, preferably 1 to 5 hours, more preferably 1 to 3 hours.
22. (Canceled)
23. (Currently amended) A dye composition comprising the compound of ~~any of Claims 1 to 11~~ Claim 1 or the product of ~~any of Claims 18 to 22~~ Claim 18.

Serial No.: 10/089,339

24. (Original) A dye composition according to Claim 23 wherein the composition is in the form of a solid mixture and further comprises an acid buffer.
25. (Currently amended) A dye composition according to Claim 23 wherein the composition is in the form of a liquid and further comprises water and an acid buffer, wherein the dye composition preferably has a pH from about 2 to about 8.
26. (Currently amended) A dye composition according to Claim 23 wherein the composition is in the form of a paste and further comprises water, thickening agent and an acid buffer, wherein the dye composition preferably has a pH from about 2 to about 8.
27. (Currently amended) A dye composition according to Claim 23, ~~24, or 26~~ 25 wherein the pH is preferably from about 2 to about 3.